## III. PREVIOUS ARCHAEOLOGY IN THE PROJECT AREA

The record of Native American and European occupation in Delaware and the Middle Atlantic region is extensive. Settlements and activity over the course of millennia have led to the formation of numerous archaeological sites. To provide a comparative basis for evaluating the remains at the Lums Pond site—to find out what is known, what needs to be learned, and what a site like Lums Pond might be expected to contribute to a further understanding of Delaware's prehistory—the results of previous archaeological investigations conducted in the area were reviewed. The files of the Delaware State Historic Preservation Office in Dover were consulted to determine the location of archaeological and architectural sites in the vicinity of the project area.

### Delaware Cultural Resource Management Units

The Delaware State Historic Preservation Office has sponsored the preparation of a series of Management Plans designed to aid in identifying the state's cultural resources and establish criteria by which to assess the significance of those resources. These Management Plans were used as a framework in assessing the significance of the cultural resources located along the SR 896 corridor, including the archaeological site at Lums Pond.[1] The proposed wetland mitigation area at Lums Pond State Park is situated in a Management Unit referred to as the Mid-Peninsular Drainage Divide, a relatively narrow strip running the length of the peninsula and comprising the land that separates streams flowing eastward to the Delaware River and westward to the Chesapeake Bay. Archaeological remains from all periods of prehistory, ranging from the Paleo-Indian period to Woodland II, have been recorded. Most of the sites consist of scatters of chipped stone artifacts, with generally few ceramics, and only occasional finds of intact features, such as hearths or storage pits. While the number of archaeological sites thus far identified within this unit is considered moderate in comparison with the rest of the state, few significant sites are known. In addition, the quality of the archaeological data contained in most of the sites has been poor to date, and so the sites have contributed relatively little to the understanding of the prehistory of the region. As a consequence, prehistoric and historic settlement and land use patterns in the region are only beginning

[1] Detailed information concerning historic contexts and property types can be found in the following publications: *Delaware Comprehensive Historic Preservation Plan* (Ames et al. 1989)
*A Management Plan for Delaware's Prehistoric Cultural Resources* (Custer 1986)
*A Management Plan for the Prehistoric Archaeological Resources of Northern Delaware* (Custer and DeSantis 1986)
*Management Plan for Delaware's Historical Archaeological Resources* (DeCunzo and Catts 1990a).

to be understood. Although prehistoric sites in this management unit were expected to be small camps and procurement sites, their discovery would provide significant additions to the existing database.

## Prehistoric Archaeological Sites near Lums Pond

Several archaeological investigations have been conducted on the grounds of Lums Pond State Park or in the vicinity of the Park. An overview of these investigations is provided to better understand the level of information available about prehistory in the area and to examine the quality of the archaeological data for comparison to the Lums Pond site.

### *Lums Pond Survey*

The most extensively investigated area in the vicinity of the Lums Pond site is the State Park itself. In 1983, Cara Wise, State Parks Archaeologist, conducted a program of survey and testing to create an inventory of archaeological resources within the park and with this inventory to develop a plan for the management of those resources. The prehistory of the park was described in the report, *Development of a Cultural Resources Plan for Lums Pond State Park* (Wise 1983). Based on previous surveys and renewed testing, a total of eleven prehistoric sites was found to be present, and three locations were tested. The investigations showed that occupation of the project area began at the end of the Late Paleo-Indian period. Four sites were presumed to be hunting sites based on the presence of single projectile points at each and low general artifact yields. The most intensive occupation appears to have developed during the Archaic period, possibly in association with the development of interior marshes as ground waters rose with the sea level after the end of the Pleistocene. The nine Archaic period sites consist of both micro-band base camps and procurement camps. Settlement appears to have dropped off after the beginning of the Woodland I period, with seven sites occupied at this time. The west side of the park contained a micro-band base camp, and related procurement sites. Occupation appeared to be more frequent at the end of the Woodland I, sites functioning as possible micro-band base camps, although this was difficult to determine based on the available evidence. Only two sites were occupied during the Woodland II period, with functions suggesting use as seasonal camps or procurement sites.

### *SR896 Investigations*

Cultural resource survey and testing was conducted along portions of the Delaware Route 896 corridor in 1985 and 1986 by archaeologists at the Center for

Archaeological Research at the University of Delaware (Lothrop et al. 1987). Eleven prehistoric archaeological sites were discovered within the proposed right-of-way, ranging in age from the Archaic through Woodland II periods. Survey along SR896 in the vicinity of Lums Pond yielded six prehistoric sites. One site, the Brennan site, was located at the head of a stream that flows into Lums Pond. The site was found to date to the Woodland I, and to consist of areas where jasper identified as originating in the Delaware Chalcedony complex was used to produce a variety of tools (Watson and Riley 1994). The site was considered a transient occupation situated between the jasper quarries 8 km to the north and a more distant base camp. The large amount of debitage recovered suggested the reduction of cores and biface manufacture. The majority of the recovered bifaces were early stage forms which were rejected during the manufacturing process. In addition, several partially completed bifaces had been brought to the site to be reduced further, possibly made into projectile points. Cores were also brought to the site and used to produce flake tools. The spatial distribution of artifacts in plow zone and sub-plow zone levels suggested discrete areas of prehistoric activity. One area included a jasper and cobble reduction locale, a processing area as indicated by utilized flakes and flake tools, and a small hearth consisting of dispersed fire-cracked rocks. A second zone consisted of cores and utilized flakes. The technological and spatial patterns led the researches to conclude that the site inhabitants had traveled to Iron and Chestnut hills to obtain jasper for use in replenishing their tool kits. Once arriving at Brennan, they camped in the area for a short while, reducing some of the jasper, before continuing onto the base camp at some further distance.

*The Route 1 Corridor*

Archaeological survey was performed on the Odessa segment of the proposed State Route 1 corridor in conjunction with a bridge replacement over the C&D Canal (Hodny et al. 1989). A number of prehistoric archaeological sites were tested and two, the Snapp site and the Wrangle Hill site, proved to contain significant archaeological deposits (Kellogg et al. 1994).

The Snapp site was the locus of repeated human settlement from 8000 BC to AD 1500, the first 5,000 years consisting of intermittent occupation by mobile groups (Custer and Silber 1995). After 3000 BC, prehistoric groups became more sedentary, as evidenced by features which suggest the presence of domestic structures. Some of the best preserved houses contained interior fireplaces and excavated pits, some of which may have been used for storage. Stone and ceramic debris inside the storage pits suggested reuse for refuse disposal. Outdoor storage pits and hearths were also present, indicating communal resource processing. The researchers concluded that individual occupations were small, representing one to five individual families at a time, and

probably spanned short periods of time. Ceramics from the site included some of the earliest forms known in the region, showing evidence of experimentation with tempering agents and manufacturing techniques not previously observed at other sites. Cobbles and pebbles that were readily available on site were used to fashion stone tools, while some of the projectile points were made of raw materials such as argillite and rhyolite that were obtained from sources some distance from the site. The use of Central Middle Atlantic raw materials and the ceramic styles indicated affinity with the Clyde Farm social complex of the later portion of the Woodland I period.

The Wrangle Hill site was occupied from 6000 BC to AD 1500 (Custer et al. 1995). Similar to the Snapp site, site occupation was ephemeral prior to 3000 BC, reflecting brief camping by mobile hunter gatherers. After 3000 BC the site was inhabited for longer periods of time, evidenced again by house features with storage and processing pits. The site was limited in extent, contained small house features, and overall a low number of features and artifacts. The researchers concluded that the site had been inhabited by one family at a time, representing a micro-band base camp. Ironstone which occurred naturally at the site, was used to manufacture stone tools. The use of ironstone blanks to manufacture bifaces set the Wrangle Hill site apart from many other sites with Woodland I artifact assemblages.

## Conclusion

Archaeological investigations in the vicinity of Lums Pond have shown that prehistoric sites are present in the region that span the entire temporal range from the Paleo-Indian through Woodland II periods. Most of these sites are small in size, suggesting transient occupation. There is evidence of longer term occupation at several locations, indicated by higher densities of artifacts and features, some of the latter interpreted as residential. The recent data recovery programs conducted at the Brennan, Snapp, and Wrangle Hill sites have raised many interesting questions about local and regional prehistory especially as it pertains to prehistoric settlement, subsistence, and technology.

Data recovery investigations at the Brennan site have shown that activity areas may remain in sites despite repeated plowing during the historic era. In this case, fire-cracked rock concentrations and clusters of chipped stone materials were identified, the latter considered to be remnants of stone tool reduction loci. The identification of Iron Hill jasper reduction areas was particularly important. Partially worked cores were reduced in the site, flaked, and some were turned into Woodland I bifaces. Based on the presence of relatively high densities of the jasper debris, the site was considered to be a

transient stop between the quarries 8 kms to the north, and an residential location further to the south.

The excavations performed at the Snapp and the Wrangle Hill sites indicated the presence of a large variety of intact features, including house features with associated storage and processing pits and refuse pits. This finding was particularly significant, since no other local excavations had shown that these kinds of features were present in this vicinity. The residential features were thought to represent occasional habitation by small groups of people over periods of less than a year. The excavations showed varying use of local and regional sources of stone materials for stone tool production. The Snapp site inhabitants relied upon locally available gravels, including pebbles and cobbles, to produce expedient tools.

Previous investigations carried out in the vicinity of Lums Pond provided valuable information on Archaic and Woodland settlement, subsistence and technology. The investigations indicated the kinds of archaeological patterns and features that could be expected in plowed and subsurface contexts. The previous investigations also raised interesting questions about local and regional raw material procurement and stone tool reduction. The archaeological investigations conducted at Lums Pond were therefore viewed in light of these previous findings.